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PROCEEDINGS
OF THE
MONTHLY MEETINGS
OF THE
ENTOMOLOGICAL SECTION
OF THE
ACADEMY OF NATURAL SCIENCES,
PHILADELPHIA.

ADVERTISEMENT.

Since January 1868, the Publication Committee of the American Entomological Society have discontinued the publication of the proceedings of the meetings of the Society, although at nearly every meeting communications have been made of greater or less interest to the collector or student. These have been made public in formal papers presented in the usual manner. In 1876, the Society in its membership became a Section of the Academy of Natural Sciences, and while the corporate existence is still maintained, the scientific meetings are conducted as a Section. Two meetings are held in each year (June and December) by the members of the American Entomological Society for the transaction of its corporate and financial business. Monthly meetings are held by the Section for the reception of verbal and written scientific communications. These it is now proposed to publish, in order that the members may give notice of their proposed publications, as well as such preliminary extracts or descriptions of species as may seem desirable. These "Proceedings" are intended to accompany the "Transactions" as an appendix, and will be published as often as the material at command will admit, in a continuous manner, without further heading, until the volume of "Transactions" shall have become complete.

Publication Committee.

JANUARY 10, 1879.

Director Dr. LECONTE in the chair.

The publication committee reported favorably the following papers presented at the last meeting for publication in the Transactions of the American Entomological Society:—

"Descriptions of new species of North American Hymenoptera, by E. T. Cresson."

"Catalogue of North American Apidæ, by E. T. Cresson."

Dr. Horn exhibited two Lepidopterous insects from Costa Rica of widely separated affinities, showing between themselves a really wonderful mimicry, not only in color but also in form; so close indeed was the resemblance that either might have been placed among a number of specimens of the other, and, without a careful glance, would not be thought distinct. The one was a *Heliconia*, the other a *Callimorpha*. The group to which the former belongs is rarely or never attacked by birds, and the mimicry belongs to the "protective" class. In regard to matters of "mimicry" so called, Dr. Horn thought the idea had been and is pushed too far. Many cases of this kind should be considered Nature's reproduction of an idea, so to speak, which had been developed elsewhere, and that such instances do occur among the myriads of insects is not very remarkable. Instances of equally wonderful "mimicry" could be cited among Coleoptera where it is not protective or anything else than a mere close resemblance, for example *Amphizoa* from California, and *Nyctipetus* from South America.

The following additions to the Library of the American Entomological Society were announced:

Proceedings of the Boston Society of Natural History, vol. xix, part 4. From the Society.

Proceedings of the Zoological Society of London, 1878. From the Society.

Bulletin of the Brooklyn Entomological Society, Nos. 2 to 7. From the Society.

American Naturalist, vol. xiii, No. 1. From the Editor.

Le Naturaliste Canadien, vol. x, No. 12, vol. xi, No. 1. From the Editor.

Field and Forest, vols. i, ii, and iii. By purchase.

The Fossil Insects of the Green River Shales, by Samuel H. Scudder. From the Author.

Compte-Rendu Société Entomologique de Belgique, Série ii, No. 57. From the Society.

Essai d'une nouvelle méthode pour faciliter la détermination des espèces appartenant au genre Bombus, par O. Radoszkowski. From the Author.

FEBRUARY 14, 1879.

Director Dr. LECONTE in the chair.

Mr. Cresson exhibited the type specimens of *Catocala Editha* Edwards, and *Catocala Walshii* Edwards, which had been sent him by Mr. William H. Edwards, for the collection of the American Entomological Society.

Dr. Horn exhibited a collection of Lepidoptera made by the late Mr. W. M. Gabb, in Costa Rica, which had been beautifully set by our fellow-member Mr. C. A. Blake. This collection had been placed in Dr. Horn's hands by Mr. Gabb, in order that any desiderata might be placed in the cabinet of the American Entomological Society. The collection is principally diurnals, consisting of *Morpho*, *Papilio*, *Heliconia*, etc., with a few heterocera or nocturnals. Dr. Horn stated that the two specimens exhibited at a previous meeting, as an instance of mimicry, also belong to this collection.

Mr. Blake stated that the collection consisted of 63 genera, 142 species of Rhopalocera, and 17 genera, 27 species of Heterocera.

The following additions to the Library of the American Entomological Society were announced:—

Proceedings of the Boston Society of Natural History, vol. xx, pp. 1—80. From the Society.

Proceedings of the Linnean Society of New South Wales, vol. ii, part 4, vol. iii, part 1. From the Society.

Journal of Proceedings of the Royal Society of New South Wales, vol. xi. From the Society.

Canadian Entomologist, vol. x, No. 12, vol. xi, No. 1. From the Editor.

Bulletin of the Brooklyn Entomological Society, Dec. 1878. From the Society.

Entomologist's Monthly Magazine, No. 176. From the Conductors.

Le Naturaliste Canadien, vol. xi, No. 2. From the Editor.

Psyche, Sept. 1878, to Jan. 1879. From the Editors.

Deutsche Entomologische Zeitschrift, 22 Jahr., 2 Heft. From the Society.

Compte-Rendu Société Entomologique de Belgique, Série ii, Nos. 58 to 60. From the Society.

First Annual Report of the United States Entomological Commission for the year 1877, relating to the Rocky Mountain Locust. From the Commission.

Notes on the Aphididæ of the United States, with descriptions of species occurring west of the Mississippi, by C. V. Riley and J. Monell. From the Authors.

Communication préliminaire sur les mouvements et l'innervation de l'organe central de la circulation chez les animaux articulés; par Félix Plateau. From the Author.

MARCH 14, 1879.

Vice-Director Dr. HORN in the chair.

Mr. Cresson made some remarks on the structure, habits and economy of species belonging to the hymenopterous family Chrysididæ, and exhibited specimens of a new species of *Euchroeus*, a genus not hitherto represented in North America. He characterized it as follows:

Euchroeus Edwardsii.—Bright metallic-green, more or less varied with blue in certain lights; head rugose; apex of clypeus, mandibles and flagellum, black; thorax coarsely and confluently punctured; postscutellum with a quadrate, transversely compressed process on the disk above; wings fusco-hyaline, paler at base; tarsi fuscous, pale at tips; abdomen subdepressed, deeply punctured, third dorsal segment with a deep, oblique, subapical groove on each side, not reaching the base of the segment, the apical margin finely and irregularly spinulose; venter piceous, polished. Length .45 inch.

Hab.—California, (Henry Edwards).

Mr. Blake exhibited a new species of *Mutilla* from Costa Rica, collected by the late Wm. M. Gabb, and characterized it as follows:

Mutilla Gabbii.—♀.—Black; head subquadrate, as wide as the thorax; two spots on vertex, transverse band on disk of mesothorax, two elongate spots on metathorax, two on disk of second abdominal segment, and sides of apical segments, clothed with a pale golden pubescence; margins of ventral segments fringed with silvery hair. Length 18 mm.

Two specimens in the collection of the American Entomological Society.

Mr. Cresson announced the completion of his Catalogue of North American Apidæ, enumerating 45 genera and 724 species; 601 species are represented in the collection of the American Entomological Society, 10 are in the collections of Belfrage and Gundlach, and 113, principally from Mexico and the West Indies, are unknown to him.

Mr. Blake called attention to the identity of *Catocala Editha* Edwards, (Trans. Am. Ent. Soc. v, 112), with *C. amatrix*, one of the most common of our species. The type of the former from Arizona, kindly presented to the American Entomological Society, by Mr. Edwards, had been carefully compared with a large number of specimens of *amatrix*, and no difference whatever was observable; it was interesting, however, as showing the geographical range of the species.

Mr. Blake also gave notice of the capture last summer of a specimen of *Papilio cresphontes* Cram., in the vicinity of Philadelphia—a very rare occurrence.

Mr. Cresson announced the death, on February 16, of Frederick Smith, the distinguished Hymenopterist of England.

The following additions to the Library of the American Entomological Society were announced:—

Proceedings of the Boston Society of Natural History, vol. xx, pp. 81—96. From the Society.

Transactions of the Wisconsin Academy of Sciences, Arts and Letters, vol. iv. From the Academy.

Bulletin of the Brooklyn Entomological Society, January, 1879. From the Society.

Entomologist's Monthly Magazine, Nos. 177 and 178. From the Conductors.

Psyche, February, 1879. From the Editors.

Cistula Entomologica, Pars xxi. By purchase.

Bullettino della Societa Entomologica Italiana, 1876—1878. From the Society.

Catalogo della Collezione di Insetti Italiani del R. Museo di Firenze. Serie 1 a Coleotteri.

Pubblicazioni del R. Istitute di Studi Superiori pratici e di perfezionamento in Firenze. Sezione di Scienze Fisiche e Naturali, vol. i. From the Society.

Horae Societatis Entomologicae Rossicae, vols. xi, xii, xiii. From the Society.

Mélanges Orthoptérologiques, par H. de Saussure. Fasc. 5 and 6, Gryllides. From the Author.

Orthoptères (Voyage au Turkestan), par H. de Saussure. From the Author.

The Natural History of Cossus Centerensis, by J. S. Bailey. From the Author.

Note on the paper, "On the Tongue (Lingua) of some Hymenoptera," by V. T. Chambers. From the Author.

Note on a Gall-Inhabiting Ant, by W. H. Patton. From the Author.

April 11, 1879.

Director Dr. LeConte in the chair.

The publication committee reported favorably the following papers presented at the last meeting for publication in the Transactions of the American Entomological Society:—

"On the Chrysides of North America, by Edward Norton."

"Catalogue of the Mutillidæ of North America, with descriptions of new species, by Charles A. Blake."

Mr. Cresson exhibited specimens of a new genus, which he named Euparagia, belonging to the family Vespidæ, and probably to the tribe Masarinæ. The general appearance of the insect is that of a very small *Vespa*, but with a larger, broader head, and more robust thorax; the antennæ are widely separated at insertion, short, clavate, with the joints distinct; head rather broader than thorax; prothorax broad and truncate in front, the angles not prominent; scutellum somewhat as in *Masaris*, rounded behind and overhanging the postscutellum; metathorax concave behind, with the lateral angles sharp; wings with an indistinct duplication, and with three submarginal cells, the second and third each receiving a recurrent nervure; legs moderately slender, tarsal claws simple; abdomen shaped much as in *Vespa*, but more rounded at base. In the ♀ the face is broad, clypeus as broad as long, obliquely narrowed to tip which is truncate; while in the ♂, the face is narrower, clypeus subquadrate, a little longer than broad, the tip deeply notched or bidentate, the antennæ longer and less clavate, and the anterior trochanters elongate, widened to tip and armed beneath with a long curved tooth or spur, which lies closely against the dilated base of the femora. The species, which is also new, he characterized as follows:

Euparagia scutellaris.—♀.—Black, head and thorax opaque; minute dot at summit of eyes, narrow upper margin of prothorax dilated into a spot anteriorly, tubercles, sometimes a rounded spot on posterior middle of mesothorax, spot at apex of scutellum, knees, base of tibiæ, and a band at tip of abdominal segments 1—6, (that on first segment slightly interrupted medially and recurved laterally, those on 2—5 dilated laterally and more or less deeply emarginate on each side anteriorly), yellowish-white; wings hyaline; abdomen smooth and shining. Length .26 inch.

♂.—Face, sides of thorax and metathorax with a pale golden pile; clypeus, mandibles except tips, dot at summit of eyes, sides of prothorax except a triangular black mark before tubercles, spot on posterior middle of mesothorax, spot at apex of scutellum, most of tegulæ, spur of anterior trochanters, tips of all the femora, the tibiæ except line at sides and beneath, and their tarsi more or less, yellow; abdomen ornamented as in ♀. Length .22—.25 inch.

Hab.—Nevada, (H. K. Morrison). Three ♀ and two ♂ specimens.

Mr. Cresson read the following descriptions of three new species of *Trigonalys*.

Trigonalys mexicanus.—♂.—Black, immaculate, clothed with a very short black pubescence; head smooth and polished, piceous; thorax and abdomen opaque, very densely and rather coarsely sculptured: wings dark fuscous, the apical third whitish hyaline, second submarginal cell narrow, pointed to base of wing, and connected with second discoidal by a short petiole, third submarginal more than twice longer than wide, receiving the second recurrent nervure near the base; legs piceous; abdomen pyriform, convex, pointed and incurved at tip. Length .60 inch.

Hab.—Mexico, (Sumichrast). Two specimens.

Trigonalys læviceps.—♀.—Black, immaculate, clothed with a very short black pubescence; head smooth and polished, piceous; thorax and abdomen opaque, densely and confluently punctured, almost granulated: wings subhyaline, with the costa broadly fuscous, covering at tip the marginal and submarginal cells, neuration much as in *mexicanus*; legs piceous, the process at tip of second ventral segment of abdomen short and truncate. Length .40 inch.

Hab.—Mexico, (Sumichrast). One specimen. Very much like *mexicanus*, but easily separated by the different ornamentation of the anterior wings.

Trigonalys nevadensis.—♀.—Black, clothed with a very short pale pubescence; head and thorax confluently punctured; basal joints of flagellum more or less dull ferruginous; tubercles, two spots on scutellum, tegulæ in part, knees, tibiæ, and base of tarsi, yellow; wings yellowish subhyaline, dusky towards tip, second submarginal cell subsessile with second discoidal, third submarginal subquadrate, rather longer than wide, receiving the second recurrent nervure a little before the middle; abdomen finely punctured, shining, a broad band at apex of second and following segments, and a triangular spot at apical corners of second ventral, yellow, the anterior margin of the yellow bands on dorsal segments uneven; the process at tip of second ventral truncate. Length .40 inch.

♂.—Ornamented like the ♀, except that the second and following ventral segments have a yellow band at tip, narrowed medially and more or less interrupted; the two yellow spots on scutellum are sometimes confluent. Length .35 inch.

Hab.—Nevada, (Morrison). Ten specimens. The neuration of the anterior wings of this species is the same as that of *pullatus* Shuck.

Dr. Horn made some remarks on the various species of *Mycterus* inhabiting the United States, showing first their trivial differences, then insisting on the greater importance of their sexual characters as the true means of specific distinction. One new species *M. canescens* from California, was described. *Lacconotus* was also mentioned as a very closely allied genus, the sexual characters, which resemble those of *Mycterus*, were described and a new species, *L. pinicola* from Colorado and California, indicated. The family Mycteridæ was then reviewed, and the opinion expressed that it should probably become a part of the Melandryidæ. The parallelism between *Mycterus* and *Lacconotus* on the one hand, and *Rhinosimus* and *Salpingus* of the Pythidæ on the other, was spoken of, showing how the former two genera would bear the same relation to the Melandryidæ that the latter two do to the Pythidæ. Dr. Horn was willing to go a step further by advocating a remodelling of these families, expressing it as his view that no definite characters had yet been given by which the Melandryidæ and Pythidæ could be retained apart. A new species of *Nothus* (*luteus*) was also indicated. Fuller descriptions, Dr. Horn said, would be given in a paper to be presented at the next meeting.

Mr. George B. Cresson was balloted for and elected a member of the Section.

The following additions to the Library of the American Entomological Society were announced:—

Proceedings of the Academy of Natural Sciences of Philadelphia, 1878, Part 3. From the Academy.

Memoirs of the Boston Society of Natural History, vol. iii, Part 1, No. 2. From the Society.

Proceedings of the Boston Society of Natural History, vol. xx, pp. 1—128. From the Society.

Canadian Entomologist, vol. xi, No. 2. From the Editor.

Le Naturaliste Canadien, vol. xi, No. 123. From the Editor.

Bulletin of the Brooklyn Entomological Society, February and March, 1879. From the Society.

Psyche, vol. ii, No. 59. From the Editors.

Entomologist's Monthly Magazine, April, 1879. From the Conductors.

Compte-Rendu Société Entomologique de Belgique, Série ii, No. 61. From the Society.

A Century of Orthoptera, by S. H. Scudder. From the Author.

Catalogue of North American Apidæ, with descriptions of new species, by E. T. Cresson. From the Author.

Entomological Papers, by C. V. Riley. From the Author.

Annual Report of the Manchester Scientific Student's Association, 1877. From the Association.

MAY 9, 1879.

Vice-Director Dr. HORN in the chair.

The Publication Committee reported favorably the following papers presented at the last meeting for publication in the Transactions of the American Entomological Society:—

"Synopsis of the Monotomidæ of the United States," by George H. Horn, M. D.

"Synopsis of the Nitidulidæ of the United States," by George H. Horn, M. D.

Mr. Blake communicated the following description of a new species of Pamphila from Costa Rica:

Pamphila dukolum.—♂.—Upper side bright fulvous; primaries broadly margined with fuscous, broadest at inner angle, a bright fulvous streak on costa extending from base to near the middle, below which at base it is obscure fuscous; at the extremity of cell a fuscous patch rounded at apex and joining the costal margin; nervules fuscous; secondaries margined with fuscous, broader at costal margin and base, becoming narrower at exterior margin; disc immaculate, fringes fulvous. Under side; primaries brighter fulvous than above, paler at apex, the fuscous margin extending along interior margin to inner angle, and terminating below the middle of exterior margin, the fuscous patch at base same as above, subcostal nervules fuscous; secondaries bright yellow, with a fulvous streak extending from base to near anal angle, immaculate, fringes same as above. Thorax above fuscous; abdomen fulvous, beneath yellow; palpi fulvous mixed with grey; antennæ fuscous, the club and basal portions of the joints bright ferruginous within; legs pale fulvous. Expands 24 mm.

Hab.—Costa Rica. Collected by the late Wm. M. Gabb. Allied to *P. Zabulon*. The specific name above used has been taken from the vocabulary of one of the Costa Rican tribes, as compiled by Mr. Gabb, and signifies brownish-yellow.

Mr. E. T. Cresson exhibited specimens of several hymenopterous insects which he believed to be new, and described them as follows:

Oryssus occidentalis.—♂ ♀.—Black, opaque; head coarsely punctured, the vertex gibbous, crowned with six or seven acute tubercles encircling the lower ocellus; clypeus acutely margined at tip which is truncate; cheeks very prominent; joints 3—6 of antennæ more or less white above; thorax depressed, densely punctured; scutellum triangular, acute at tip; wings smoky beyond stigma; knees and line on outer side of tibiæ, white, tarsi fulvo-testaceous, sometimes more or less obfuscated; abdomen shining, ferruginous, basal segment black, scabrous. Length .40—.60 inch.

Hab.—Colorado, Nevada, (Morrison). Eight specimens.

Oryssus mexicanus.—♀.—Black, opaque, coarsely and confluently punctured; vertex crowned with a circular row of prominent tubercles around the lower ocellus, and between the summit of the eyes a coarse transversely rugose prominence; on each side of the face a sharply defined longitudinal carina reaching below to the acutely margined, somewhat recurved tip of clypeus, converging above and connected by a cross-carina below the lower ocellus, the surface within this oblong quadrangular enclosure is reticulated: cheeks silvery sericeous, a short acute carina on each side above base of mandibles: posterior margin of prothorax above silvery-sericeous; a longitudinal shining ridge on disk of mesothorax and another shorter and less distinct on each side over the tegulæ: scutellum rounded at tip; wings fusco-hyaline, a subhyaline space beneath stigma; tibiæ piceous, tarsi dull ferruginous; abdomen rather shining, basal margin of the segments rufo-testaceous. Length .60 inch.

Hab.—Mexico, (Sumichrast). One specimen.

Cleptes purpurata.—♀.—Purple, changing to blue, shining: head and thorax sparsely punctured, thinly clothed with erect black pubescence; scape black, flagellum brown, sericeous; prothorax green: longitudinal lines on mesothorax deeply impressed; metathorax coarsely rugose, longitudinally so at base above, lateral angles subacute; tegulæ piceous; wings pale fuscous; legs black or piceous; abdomen flattened, ovate, smooth and shining, minutely punctured, black, changing to purple in certain lights, thinly clothed with short black pubescence. Length .30 inch.

Hab.—Vancouver's Island. (Henry Edwards). One specimen.

Cleptes americana.—♂ ♀.—Green, blue or purple, sparsely punctured, thinly clothed with black pubescence; antennæ black, scape sometimes blue or green, flagellum sericeous; thorax strongly punctured, longitudinal lines on mesothorax well impressed; metathorax reticulated, sometimes longitudinally rugose at base above, lateral angles acute; tegulæ black or piceous, sometimes æneous; wings pale fuscous; tibiæ and tarsi black or piceous; abdomen flattened, smooth and shining, feebly punctured, thinly pubescent, black, changing to green, blue or purple in certain lights. Length .20—.23 inch.

Hab.—Colorado, Nevada. Fourteen specimens.

Mr. Cresson stated that the species described by him at a former meeting as *Euchroeus Edwardsii*, should have been referred to *Parnopes*, also a genus not hitherto represented in North America.

Rev. Mr. McCook exhibited some microscopic slides containing thin sections of the mandibles of the Agricultural Ant of Texas, (*Pogonomyrmex barbatus*), showing the loss of substance by wear on the sharp edges of the teeth. These slides served to illustrate his views that, while the teeth of the mandibles in some specimens may be naturally more acute than in others, the great amount of rounding seen in the specimens of older individuals is the result of natural wear as in the teeth of higher animals. The same fact was also illustrated in the mandibles of *Pasimachus* and other coleoptera as well as in other members of the body exposed to wear.

Mr. McCook exhibited the nest (Fig. 2), of a Lycosid spider which is probably a new species of the genus *Tarentula.* It was discovered July 26, 1878, on the grounds of Mrs. Mary Treat, at Vineland, N. J., and being carefully dug up was successfully transported and added to his collection of Insect architecture. It is a tube about 7½ inches deep, resembling an ear-trumpet (Fig. 1), with the mouth upward. It is bent at an angle of 60° shortly below the surface; the upper part is a silk-lined funnel, that widens outwardly to the margin, which at the highest point is 1⅛ inches above the surface of the ground. The silken lining extends but a little way below the surface. The projecting funnel is composed of blades of grass (Fig. 2), which are bent down upon their stalks from all sides, overlaid, and rudely interwoven, making thus a background upon which the smooth silken lining is placed. The longest diameter of the mouth of the tube (Fig. 1), *ab*, is 1½ inch, the shorter diameter *cd*, is 1¼ inch. The diameter of the tunnel below the surface is ⅝ inch. The ♀ found with this nest is a large example, 1 inch long, of a dark purplish-brown color, marked across the abdomen with yellowish bars, having on the legs and palpi annuli of the same color. The species was provisionally named *Tarentula tigrina*, and further description reserved.

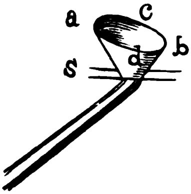


FIG. 1.—*s*, surface of ground. *abcd*, silk-lined funnel.

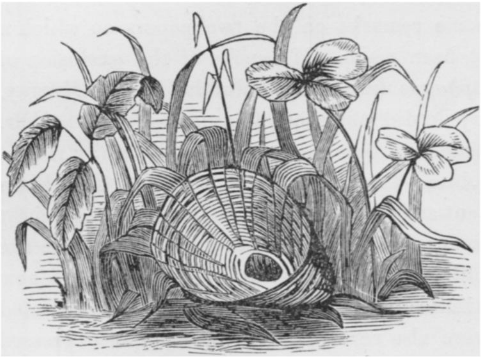


FIG. 2.—Nest of *Tarentula tigrina* (?).

Dr. Horn called attention to several coleoptera, as follows:

Cantharis deserticola Horn, originally described from a ♀ was supposed to belong to the group with the antennæ similar in the sexes. A male recently received proved to have the antennæ thickened in the middle, it therefore belongs to "Group 1" and most closely allied to *C. tenebrosa* Lec., but abundantly distinct by color and sculpture.

Mycetina limbata Horn. described from a specimen with the spots confluent so that the disc of elytra was piceous and the margin pale. Specimens recently received show it to have markings exactly like *Endomychus biguttatus*, that is. elytra red with two oval black spots on each.

Dasycerus sulcatus Brongn.—A specimen not differing from the figures and descriptions of this European insect has been sent from North Carolina.

Adelops hirtus Tellk.—The tarsi are five jointed on all the feet while in the European species the tarsi are 4—5—5.

Sarpedon scabrosus Bonv.—Mr Ulke has loaned me what seems to be the male of this species. The antennæ are bipectinate from the third to the tenth joints, the branches of moderate length but shorter on the third. The eleventh joint is not straight but flexed. The pectinations do not arise opposite on the joints, the anterior branch being at the distal end of the joint, while the posterior branch proceeds from the base.

Dr. Horn also made some remarks on the two papers on which a favorable report had just been made. He spoke of the exclusion of *Cybocephalus* and *Rhizophagus* from the Nitidulidæ by Mr. Murray, and gave his reasons why he did not adopt the views of that author, who excluded the former genus because it had not a family resemblance and had four jointed tarsi. The first objection Dr. Horn thought entirely insufficient and the latter while having some weight should be disregarded, because such a precedent would necessitate the establishment of new families in nearly all the large families as now recognized, from the Dytiscidæ down. The Monotomidæ as restricted in the "Classification" were also reviewed and the opinion expressed that they would probably have to be reunited with the Lathridiidæ.

The following additions to the Library of the American Entomological Society were announced:—

Proceedings of the Monthly Meetings of the Entomological Section of the Academy of Natural Sciences, Philadelphia, pp. i.—viii. From the Section.

Canadian Entomologist, vol. xi, No. 3. From the Editor.

Report of the condition and progress of the Davenport Academy of Natural Sciences, January 1, 1879. From the Academy.

The Natural History of the Agricultural Ant of Texas, by H. C. McCook. From the Author.

Psyche, vol. ii, No. 60. From the Editors.

Journal of the Cincinnati Society of Natural History, January, 1879. From the Society.

Le Naturaliste Canadien, vol. xi, No. 124. From the Editor.

Compte-Rendu Société Entomologique de Belgique, Série ii, No. 62. From the Society.

The Silkworm, being a brief Manual of Instructions for the production of Silk. By C. V. Riley. From the Author.

JUNE 9, 1879.

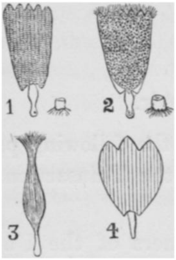
Vice-Director Dr. HORN in the chair.

The Publication Committee reported favorably the following paper presented at the last meeting for publication in the Transactions of the American Entomological Society:—

"Notes on the Mycteridæ and other Heteromera of the United States," by George H. Horn, M. D.

Mr. Blake exhibited some very fine specimens of rare Lepidoptera, among which were *Urania Leilus*, *U. Braziliensis*,? and *Cydimon Boisduvalii*, from Central America; *Thaliura* (*Urania*) *Ripheus*, from Madagascar; *Morpho Cypris* ♂, and *M. Sulkowskyi*, from New Granada; *Argynnis Nokomis* ♂ and ♀, *Argynnis Leto* ♂ and ♀, and *Platysamia Gloveri*. Also ♂ and ♀ *Actias Luna*, and *Junonia Lavinia*, showing abberrations from the normal form. The ♂ *A. Luna* having on the left primary, midway between the usual discal spot and apex, and about one-eighth of an inch beneath the costal margin, an irregularly ovate ocellus with crimson centre, deeply emarginate without, surrounded with pale yellow, which in turn is margined with a fine line of the usual chocolate color of costa. The vitreous portion of the discal spot is also broadly margined internally with crimson, and the branch connecting it with costa broadly suffused. The ♀ has the discal spots on primaries very broadly diffused and irregular, that on the right side throwing out two short, obtuse branches toward the apex; that on the left side is more broadly diffused, and suffused with crimson, more irregular in form, and somewhat larger than the other; the external crimson lines outside the vitreous portion very distinct. The nervules are all of the same color as the costa. The ocelli on secondaries are larger than usual, and broadly suffused beneath the vitreous spot with pink. Both specimens emerged from the cocoon

June 2d. *Junonia Lavinia:* the entire insect above darker than usual. Beneath, the median band on primaries is quite white, with the usual ocellus very distinct, the apex deep ferruginous; the secondaries uniformly deep ferruginous with the ordinary spots faintly visible.



Mr. Blake also made some remarks on the form of the scales of *Morpho Cypris* and *M. Sulkowskyi*, and exhibited drawings of the same; he stated that the stems of the scales, as seen under the microscope, showed the attachment to the membrane of the wing to be similar to a ball and socket joint. Prof. Westwood also mentions a similar arrangement in the scales of the "rugose portion" of the wing of *Hipparchia Semele.* Mr. Blake had examined the scales of the last named species, but failed to find the stems as distinctly balled at the insertion as those of the species of *Morpho* above mentioned. Fig. 1, represents a magnified scale of *Morpho Sulkowskyi;* 2, of *M. Cypris;* 3, of *Hipparchia Semele*, from the rugose portion, the extremities of the scales being tufted with hairs; 4, normal form of the scale of *H. Semele.* The small figures on the right show the socket attached to the membrane of the wing, in which the stems are inserted.

Dr. Horn made the following communication on the Elateridæ.

The species of ADELOCERA in our fauna divide into three series as follows:

Prothoracic tarsal grooves deep, distinctly limited, uniting posteriorly with the antennal groove..1.
Prothoracic grooves feebly impressed, neither distinctly limited nor joining the antennal grooves..2.
Prothoracic grooves entirely absent..3.

The first series contains species separable as follows:

Punctures of elytra in regular rows; median impression of thorax feeble. 12. **impressicollis.**
Punctures dense, not in series; thoracic impression deep.
  Elytra gradually narrowed from base to tip; surface marmorate with brown and luteous........................7. **marmorata.**
  Elytra parallel, narrowed at apical third.
    Surface black with white scales very sparsely placed..............6. **sparsa.**
    Surface densely clothed with fulvous scales....................5. **pyrsolepis.**

The species of the second series are known as follows:

Elytra with punctures in rows; prothoracic channel almost entirely obliterated; surface sparsely scaly....................................13. **modesta.**

Elytra with confused punctuation.
  Tarsal grooves long, continued anteriorly parallel with the suture. Thoracic channel feeble........................ ....11. **discoidea.**
  Tarsal grooves short, oblique.
    Thoracic channel broad and deep. Surface moderately densely clothed with fulvous scales..4. **rorulenta.**
    Thoracic channel rather feebly impressed.
      Elytra with white scales sparsely placed.......................10. **aurorata.**
      Elytra marmorate with brown and luteous..................... 8. **maculata.**

The species of the third series are as follows:

Elytra with convex disc, thorax feebly channeled, antennal groove long, reaching the coxa..9. **avita.**
Elytra with depressed disc. Thorax broadly channeled, antennal groove abbreviated posteriorly.
  Thoracic impression entire, extending from base to apex, hind angles divergent...1. **obtecta.**
  Thoracic impression broad, but basal only, hind angles not divergent.
    Hind angles compressed, pseudo-carinate......................2. **brevicornis.**
    Hind angles not compressed..3. **profusa.**

The numbers give a better cabinet arrangement and place the species in a series in which their superficial relationships are shown.

2.—A. BREVICORNIS and PROFUSA are very closely related and may in the future be united.

5.—A. PYRSOLEPIS resembles RORULENTA superficially very closely, but Mr. Ulke who has the type informs me that the tarsal grooves are as well marked as in *sparsa.*

13.—A. MODESTA Boisd.—A specimen of this species was given me in Paris, said to have been collected in the Peninsula of California, and as it occurs in Mexico, and shows a tendency to acclimate itself in the warmer countries around the entire globe, it is possible that the locality given me is accurate. For its determination I am indebted to Dr. Candeze.

The following changes and synonymy are noted:

Alaus LUSCIOSUS Hope, should replace *gorgops* Lec.

Cardiophorus *Dejeanii* Lec., is an immaculate variety of CARDISCE Say.

C. *amictus* Mels., appears to be CONVEXUS Say.

C. *mimeticus* Horn, is a color variety of EDWARDSI Horn.

Cryptohypnus *nocturnus* Esch., and *luciduluus* Mann., do not seem specifically distinct from BICOLOR Esch. Other synonyms of this species are already noticed in the Check List.

C. *colon* Horn, is a variety of ORNATUS Lec., with two spots only. It may be entirely black.

Elater SEMIVITTATUS Say. To this species *Corymbites tristis* Cand., should probably be referred.

E. *Sayi* Lec., seems not distinct from MILITARIS Harris.

E. *socer* Lec., is IMPOLITUS Mels.

E. *manipularis* Cand., is HEPATICUS Mels.

E. *molestus* Lec., is LUCTUOSUS Lec.

E. *fuscatus* Mels., is PEDALIS Germ., which seems to be only NIGRICANS Germ.

E. *lacustris* Lec., is PULLUS Germ.

E. *palans* Lec., seems not distinct from COLLARIS Say.

E. *deletus* and *fusculus* Lec., are color variations and very doubtfully different from MIXTUS Hbst.

In Elater there is much other synonymy caused by the separation of species from color alone. These will be given after a closer study of true specific differences.

Anchastus FUSCUS Lec., is an Ischiodontus.

A. *longulus* Lec., is the male of DIGITATUS Lec.

Ischiodontus *oblitus* Cand., appears to be SIMPLEX Lec.

Melanotus *cuneatus*, *incertus* and DECUMANUS Lec., seem not to differ.

M. *tenellus* Er., is INSIPIENS Say.

Limonius *pubicollis* Lec., is AURIPILIS Say.

L. *Ulkei* Horn, is the female of MIRUS Lec.

L. *semiaeneus* Lec., is BASILLARIS Say, with pale elytra.

L. *ectypus* Say, is AGONUS Say.

L. QUADRIMACULATUS Horn, should be referred to Megapenthes.

Athous *reflexus* Lec., is RUFIFRONS Rand., of uniform brown color.

A. DEBILIS Lec., is a Monocrepidius.

A. *maculicollis* Lec., and *flavangularis* Horn, are color varieties of ACANTHUS Say.

A. BICOLOR Lec., and DISCALCEATUS Say.—In these two species the prosternal sutures are double, and excavated in front as in many Limonius, differing in this respect from all the others in our fauna. A similar occurrence of double sutures is found also in Corymbites SULCICOLLIS and RUPESTRIS, in which the tarsi also vary from the normal type and approach Asaphes.

The above synonymy is such as has been noticed in a rearrangement of the species of my cabinet to this point. It is my desire to present from time to time tables of the genera, the great accumulation of material now rendering it possible to arrive at some idea of what constitutes a species.

Mr. E. T. Cresson exhibited specimens of several new species of Hymenoptera contained in the collection of the American Entomological Society, and characterized them as follows:

Ibalia rufipes.—♀.—Black, face and cheeks aciculated, a carina extending from lower ocellus to base of antennæ, mandibles piceous; thorax above transversely wrinkled, upper margin of prothorax strongly carinate and slightly emarginate medially; scutellum coarsely rugose, apex emarginate; pleura shining, almost smooth; tegulæ piceous; wings dusky, nervures and stigma black; legs ferruginous, coxæ, trochanters and posterior tibiæ except extreme base, black; abdomen fulvo-ferruginous, semi-transparent, upper edge dusky, sides varied with yellow. Length .45 inch.

Hab.—Nevada. H. K. Morrison.

Ibalia montana.—♀.—Head, pro- and mesothorax, and spot beneath tegulæ luteo-fulvous; mouth, antennæ, anterior middle of prothorax, scutellum, metathorax and pleura, black; mesothorax transversely wrinkled, upper margin of prothorax strongly carinate and slightly emarginate centrally; scutellum coarsely rugose, apex deeply emarginate; wings hyaline, slightly dusky, nervures and stigma black; legs ferruginous, tarsi paler, posterior tibiæ dusky; abdomen nearly twice the length of head and thorax, upper and lower margins parallel, fulvo-ferruginous, varied with fuscous, especially posteriorly, sides of middle and venter pale luteous, semi-transparent. Length .56 inch.

Hab.—Colorado. H. K. Morrison.

Aulacus pallipes.—♂.—Small, black; head subglobose, broad behind eyes; face beneath antennæ, spot beneath eyes, mandibles except tips, antennæ and legs except coxæ, yellow; antennæ nearly as long as the body, dusky at base above; mesothorax very feebly rugose, rounded in front, not emarginate; sides of pleura stained with dull yellowish; wings hyaline, nervures and stigma dull ochraceous; abdomen robust, about as long as head and thorax, slender at base, first and second segments except base, and the venter, ferruginous. Length .26 inch.

Hab.—Massachusetts. James Ridings.

Pterochilus mirandus.—♀.—Large, black; clypeus narrow, lower anterior orbits, broad posterior orbits, dot near summit of eyes, small transverse spot between antennæ, mandibles except tips, scape beneath, broad upper margin of prothorax, tubercles, large rounded spot beneath tegulæ confluent with an oblique stripe nearly reaching middle coxæ, two large square spots on scutellum, postscutellum, metathorax except rather broad median black stripe, and most of tegulæ, all sulphur-yellow; clypeus subrhomboidal, subconvex, tip truncate, labial palpi honey-yellow, fringed with long pale hair; wings subhyaline with a violaceous reflection, stained with yellow along costa, extreme apical margin dusky; legs black, most of coxæ beneath, most of four anterior femora, tips of posterior pair, all the tibiæ and most of tarsi, yellow; abdomen sulphur-yellow, sericeous; central stripe on base of first segment ending in a spot on disk, base more or less of remaining segments, transverse line on disk of second segment connected with band at base by a short more or less broad median line, margins of apical segment, and base of two or three basal segments of venter, black. Length .80 inch.

♂.—Clypeus, mandibles, dot between antennæ, narrow line on each side, narrow line on posterior orbits, scape beneath, upper margin of prothorax indented each side, spot beneath tegulæ, line on postscutellum, two spots on metathorax, legs except four anterior femora behind and posterior femora at base and beneath, lateral and apical margin of segments one and two of abdomen, apical margin of three to six, large spot on sides of two, spot near tip of apical segment, most of first ventral, the second except base, and apical margin of remaining segments, all sulphur-yellow; anterior margin of apical bands on third and fourth dorsal segments notched on each side anteriorly; clypeus longer than broad, sericeous, apical margin narrow, truncate; flagellum fulvous beneath, apical joint black, not hooked. Length .65 inch.

Hab.—Nevada. H. K. Morrison.

Pterochilus decorus.—♀.—Medium, black; clypeus, dot above, mandibles except tips, anterior orbits, line behind eyes, scape beneath, broad upper margin of prothorax, spot on sides of scutellum, postscutellum, large spot on sides of metathorax, small spot on extreme sides, round spot beneath wings, small one behind it, and the tegulæ, sulphur-yellow; clypeus subrhomboidal, depressed towards tip which is truncate; tips of mandibles reddish-brown, labial palpi pale ferruginous, fringed with long pale hair; wings subhyaline, stained with yellowish-fuscous along costa and at tip; legs yellow, coxæ, except spot on two posterior pairs beneath, trochanters, line on anterior femora above, and the two posterior pairs, except tips, black, anterior femora before, and most of the tarsi dull fulvous; abdomen ovate, feebly punctured, subopaque, first segment of abdomen, except large subtrefoil black spot on disk, connected with base by a narrow line, rather broad apical margins of remaining segments, broad lateral margin of second segment acutely produced within nearly to the disk, and most of the venter, sulphur-yellow. Length .50 inch.

Hab.—Nevada. H. K. Morrison.

Pterochilus zonatus.—♂.—Medium, black; clypeus, spot on mandibles, narrow lower orbits, line on posterior orbits, short line or two spots between antennæ, scape beneath, upper anterior margin of prothorax, tegulæ except median dot, spot beneath, dot on sides of scutellum, postscutellum, spot on each side of metathorax posteriorly, tips of femora more or less, tibiæ and tarsi, two spots at base of first segment of abdomen, and rather narrow apical margin of all the segments above and beneath, bisinuate or biemarginate anteriorly, all pale yellow; clypeus seven-sided, as long as broad, smooth, tip slightly emarginate; antennæ long, robust especially towards tip, flagellum pale fulvous beneath, spotted at apex with black, apical joint truncate, not hooked; wings stained with yellow, nervures pale ferruginous or fulvous; abdomen narrowed at base, the segments smooth at base, sparsely punctured at apex, first segment campanulate. Length .50 inch.

Hab.—Nevada H. K. Morrison.

Pterochilus comptus.—♀.—Medium, black; head broader than thorax; clypeus, mandibles except tips, palpi, lower anterior orbits, posterior orbits, two nearly confluent dots between antennæ, scape beneath, broad upper margin of prothorax, tubercles, tegulæ, two spots on scutellum, postscutellum, sides of metathorax, broad oblique subinterrupted line on sides of pleura, spot on under side, legs except four anterior femora above and posterior pair except tips, apical and lateral margins of first segment of abdomen, broad apical margin of remaining segments, that on the second broadly dilated on each side of middle, and the venter entirely except base of second segment, all sulphur-yellow; clypeus large, broad, convex, broadly rounded at tip, labial palpi fringed with long pale hair; flagellum fulvous beneath; vertex rather thickly clothed with pale pubescence; anterior angles of prothorax tuberculate; wings hyaline, costa yellow, extreme apex narrowly fuliginous; abdomen shining, sparsely punctured, first segment subcampanulate. Length .45 inch.

Hab.—Nevada. H. K. Morrison.

Pterochilus Morrisoni.—♀.—Small, black, opaque; head broader than thorax; clypeus except sometimes at tip, mandibles, palpi, lower anterior orbits, broad posterior orbits, scape beneath, upper margin of prothorax, tegulæ, two square spots on scutellum, postscutellum, two spots on metathorax, broad oblique subinterrupted line on sides of pleura, spots on middle coxæ beneath, anterior femora except base above, intermediate pair at tip beneath, tips of posterior pair, tibiæ and tarsi, and broad apical margin of abdominal segments, that on second widened laterally, all sulphur-yellow; clypeus subrhomboidal, subdepressed towards tip which is broadly truncate; labial palpi fringed with long pale hair; flagellum more or less fulvous, generally fuscous above; wings subhyaline, costa yellowish, apex smoky; abdomen closely punctured, first segment campanulate. Length .30—.35 inch.

♂.—More slender, eyes larger, face narrower; clypeus and mandibles entirely yellow; antennæ long and robust towards tip, which is incurved but not hooked, flagellum pale fulvous beneath and at extreme tips above; all the coxæ more or less yellow; otherwise like the ♀. Length .30 inch.

Hab.—Nevada. H. K. Morrison.

Pterochilus biplagiatus.—♀.—Medium, black; clypeus except narrow apical margin, dot on base of mandibles, spot on lower anterior orbits, line on upper posterior orbits, two dots above base of antennæ, scape beneath, upper margin of prothorax, tegulæ except median dot, round spot beneath, two spots on scutellum, postscutellum, spot on each side of metathorax posteriorly, tip of femora, tibiæ except spot behind, tarsi, apical margin of abdominal segments 1—5 widened laterally, those on 2—5 more or less deeply emarginate on each side anteriorly, spot on sides of first segment at base confluent with lateral margin, an ovate spot on sides of second segment, spot on apical segment, and narrow apical subinterrupted margin of ventral segments 2—4, all pale yellow; clypeus subrhomboidal, truncate at tip, mandibles dull reddish at tip; labial palpi dull fulvous, fringed with pale hair; mesothorax densely confluently punctured; wings yellowish-subhyaline; abdomen shining, almost smooth, impunctured, first segment broad. Length .50 inch.

♂.—More slender, head and thorax clothed with pale pubescence; clypeus entirely, mandibles except tips and palpi yellow; antennæ long, robust towards tip which is incurved but not hooked, flagellum entirely black; coxæ, trochanters, four anterior femora except base above, tips of posterior pair, and tibiæ and tarsi entirely, yellow; venter mostly yellow; otherwise much like the ♀. Length .45 inch.

Hab.—California. Henry Edwards.

The following additions to the Library of the American Entomological Society were announced:

Proceedings of the Academy of Natural Sciences of Philadelphia, 1879, Part 1. From the Academy.

Proceedings of the Monthly Meetings of the Entomological Section of the Academy of Natural Sciences, Philadelphia, pp. ix.—xii. From the Section.

Bulletin of the Essex Institute, vol. x, Nos. 10—12. From the Institute.

Bulletin of the Brooklyn Entomological Society, April, 1879. From the Society.

Proceedings of the Zoological Society of London, 1878, part 4. From the Society.

Entomologist's Monthly Magazine, No. 180. From the Conductors.

Canadian Entomologist, vol. xi, No. 4. From the Editor.

Le Naturaliste Canadien, vol. xi, No. 125. From the Editor.

Annales de la Société Entomologique de France, Série 5, tome 4—7. From the Society.

Annales de la Société Entomologique de Belgique, tome 21, No. 3, 22, No. 1. From the Society.

Compte-Rendu Société Entomologique de Belgique, Série ii, No. 63. From the Society.

Transactions of the Kansas Academy of Sciences, 1873—1878. From the Academy.

Hymenoptera Scandinaviæ auctore C. G. Thomson. Tom 5. By purchase.

Two interesting American Diptera, Glutops singularis and Epibates Osten-Sackenii, by Edward Burgess. From the Author.

The Anatomy of the head and the structure of the maxilla in the Psocidæ, by Edward Burgess. From the Author.

The insects of the Tertiary Beds at Quesnel, (British Columbia), by S. H. Scudder. From the Author.

Descriptions of new genera and species of Isopoda from New England and adjacent regions, by Oscar Harger. From the Author.

Quelques conseils aux chasseurs d'insectes, par A. Preudhomme de Borre. From the Author.

Note sur des difformités observées chez l'Abax ovalis et le Geotrupes sylvaticus, par A. Preudhomme de Borre. From the Author.

Sur l'œuf et la jeune larve d'une espéce de Cyphograpia, par A. Preudhomme de Borre. From the Author.

SEPTEMBER 12, 1879.

Director Dr. LECONTE in the chair.

The Publication Committee reported favorably the following papers for publication in the Transactions of the American Entomological Society:—

"Descriptions of new species of North American Hymenoptera," by E. T. Cresson.

"Catalogue of North American Tenthredinidæ and Uroceridæ," by E. T. Cresson.

Dr. Horn gave the members the result of a study of the Eucnemidæ with especial reference to *Cerophytum* and *Perothops*, which are considered aberrant members of that family, the latter being excluded entirely by Bonvouloir. An examination of the labrum in both genera shows it to be prominent, transverse, entirely corneous and connate with the front in a manner very much like the Cebrionidæ. These genera should be excluded from the Eucnemidæ each to represent a sub-type of the greater Elateride complex including with the families above mentioned the Throscidæ and Elateridæ proper.

Dr. Horn gave in brief a review of the Dascyllidæ, a synopsis of which was presented for publication. He stated that the arrangement of the tribes and genera did not differ from that already proposed by Dr. Leconte, which was the best yet given, except in some details of secondary importance. After passing in review the several tribes and genera, special attention was directed to certain hitherto unnoticed characters in the genera allied to *Eubria*, of which three occur in our fauna, *Dicranopselaphus*, *Ectopria* and *Acneus* n. g.

In *Ectopria* (Eurea), a dissimilarity is found in the tarsal claws in the two sexes. In the male both claws are bifid at tip for nearly a third of their length, at the base of the claw is a large tooth rectangular in front. In the female the tooth exists but the tip of the claw is entire.

Dicranopselaphus has similar claws in the male, the female remaining unknown. Our species of this genus has not the two spiniform appendages at the end of the palpi, but the last joint is simple as in *Ectopria*. This character ceases to have generic value and *Dicranopselaphus* must be separated from *Ectopria* by the slightly dilated tarsi with the joints 2—3—4 somewhat emarginate and the fourth also slightly lobed.

Acneus is founded on a female only and the characters are rather negative. The claws are simple at tip and there is merely a feeble triangular dilatation near the base of the claw. The third joint of the antennæ is also elongated.

Eubria does not occur in our fauna, but all European authors agree in its having simple claws. This is not true. The anterior claw on each pair of legs is bifid at tip while the posterior is simple. The female was not seen.

Dicranopselaphus Edwardsii Lec., forms a new genus, differing remarkably from all *Dascyllidæ* in having the claws furnished with a long membranous appendage arising from the base, and a distinct onychium. The genus was called *Placonycha*.

Mr. McCook exhibited an artificial formicary containing living specimens of the Honey Ant, *Myrmecocystus mexicanus* Wesmael. They were brought from the Garden of the Gods in Colorado, where they were first discovered by him. They had not been observed heretofore north of New Mexico. A specimen of the exterior architecture, and portions of the interior were also shown. The nests are gravel covered moundlets in shape of a truncated cone, about three inches high, six to ten inches in diameter at the base, and about two in diameter at the top. The centre is pierced perpendicularly by a tubular gallery about one inch wide and three to six inches deep. From the end of this other galleries branch out, in one direction chiefly. One nest opened was followed seven feet, ten inches, through the red sandstone at a depth of two to three feet beneath the surface. Honey chambers of various sizes, some six inches long by three wide, and three and one-fourth inches high were found, in each of which about thirty honey-bearers hung. They clung to the roof by their feet, the globular abdomen, filled with amber honey, drooping down. The ants are nocturnal in habits, and collected honey from galls upon the scrub oak (*Quercus radiata*). They left the nest in column about 7.30 P.M. after sundown, and returned from 11.30 P.M. to 3.30 A.M., laden with the sweet exudations from the galls, which quite distended their abdomens. Mr. McCook succeeded in making quite complete studies of the habits and architecture of these interesting insects, which have until now been entirely unknown. His field studies, it is hoped, will be supplemented by important observations upon the living specimens which he brought with him in large numbers.

He also made extended observations of the habits and architecture of *Pogonomymex occidentalis* Cresson. This large red ant makes the conical mounds (usually gravel covered), which form one of the most familiar objects upon the far western plains. They prove to be harvesting ants, quantities of seeds being found in their granaries. They closely resemble in structure and habits their congener *P. barbatus*, the Agricultural Ant of Texas. There are however, some interesting variations of habit.

Mr. E. T. Cresson exhibited specimens of five new species belonging to the hymenopterous genus *Eucerceris*, and described them as follows:

Eucerceris fulviceps.—♀.—Head unusually large, widened beneath, closely punctured, fulvo-ferruginous, sides of face, prominence between antennæ, and clypeus pale yellow; clypeus broad, very short, produced medially into a subacute tooth, black at tip; apical half of mandibles black; antennæ black, four basal joints fulvous; thorax black, closely punctured, tegulæ, scutellum and disk of metathorax fulvous; posterior margin of prothorax, dot on sides of scutellum, line on postscutellum, an oblong mark on sides of metathorax and a slender oblique line on each side of basal enclosed space, yellow; the latter transversely or slightly obliquely striated; wings fuscous, darker on apical costal margin, stigma and costal nervure fulvous; legs entirely fulvous; abdomen closely punctured, coarsely so on apical margin of the segments, a broad pale yellow band on segments 1—4 above, that on the first narrower and subinterrupted, apical segment blackish at tip; venter immaculate. Length .60 inch.

Hab.—New Mexico.

Eucerceris rubripes.—♂.—Black, coarsely punctured, shining; broad stripe on sides of face narrowed above, stripe between antennæ reaching the lower ocellus, and the clypeus, lemon-yellow; mandibles except tips, large spot on cheeks behind summit of eyes, and seven basal joints of antennæ, fulvous; posterior margin of prothorax, tubercles, spot behind, subinterrupted line at base of scutellum, line on postscutellum, and spot on tegulæ, white; an indistinct ferruginous line on sides of metathorax; scutellum with a few large scattered punctures, basal enclosed space of metathorax with ill-defined transverse striæ; wings subhyaline, the apical costal margin rather broadly violaceous black, before stigma it is narrower and yellowish; stigma and costal nervure fulvous; legs fulvous, spot on anterior femora beneath and line on the four anterior tibiæ before, yellow; abdomen sparsely punctured, segments 2—5 with a transverse median impressed line, a broad yellow band on segments one and two, a narrow yellow band at apex of segments 3—6 suddenly dilated on sides; apical segment and bands on venter fulvous, several yellow spots on segments three and four beneath. Length .50 inch.

Hab.—Colorado. H. K. Morrison.

Eucerceris elegans.—♂.—Face nearly to summit of eyes and clypeus cream-white; cheeks and mandibles except tips, fulvous; vertex, line above insertion of each antenna, and tips of mandibles, black; antennæ black, five or six basal joints fulvous; head large, rather closely punctured; thorax black, pro- and mesothorax and scutellum sparsely and coarsely punctured, shining; posterior margin of prothorax, four spots on anterior margin of mesothorax, the two middle ones smaller and oblique, broad band at base of scutellum, line on postscutellum, tubercles, spot behind, and most of tegulæ, all white; large oblong mark on sides of metathorax, dot beneath wings and the pectus fulvous; basal enclosed space of metathorax obliquely striated, deeply channeled centrally; legs entirely fulvous; wings hyaline, with the costal margin broadly yellow, shading into black at tip, costal nervure fulvous; abdomen coarsely and sparsely punctured, shining, segments 2—5 with a transverse median impressed line, segments 1—4 above with a broad white band, five and six with narrow apical bands, terminal segment and bands on venter ferruginous. Length .45 inch.

Hab.—Nevada. H. K. Morrison.

Eucerceris similis.—♀.—Black, shining, sparsely and finely punctured; head large, widened towards the mouth; sides of face, line between antennæ, clypeus, spot at base of mandibles, broad sinuous line on cheeks, posterior margin of prothorax, line at base of scutellum, sometimes interrupted into spots, line on postscutellum, ovate spot on sides of metathorax, two ovate spots in basal enclosed space, two spots on pleura, dot on tegulæ, spot on coxæ, tips of four anterior femora, posterior pair except base and apex, most of the tibiæ, band at apex of abdominal segments 1—5 dilated laterally, and band on ventral segments 2—4, all yellow; clypeus flattened, toothed at apex; the three or four basal joints of flagellum ferruginous; metathorax finely punctured, finely striated on the sides, basal enclosed space smooth, channeled centrally; wings subhyaline, costal margin rather broadly fuscous; tarsi ferruginous. Length .40 inch.

♂.—The face and pectus entirely and most of the legs are yellow; otherwise the markings are much as in the ♀.

Hab.—Nevada. H. K. Morrison.

Eucerceris vittatifrons.—♂.—Black, shining; three stripes on the face, continued on the clypeus, the central one narrowed above clypeus and reaching the lower ocellus, spot behind summit of eyes, stripe on mandibles, posterior margin of prothorax, line or two spots at base of scutellum, line on postscutellum, line or spot on sides of metathorax, tubercles, spot behind, spot on tegulæ, line on four anterior tibiæ, narrow band on apical margin of abdominal segments 1—6 more or less dilated laterally, and band or spots on ventral segments 2—4, all yellowish-white; vertex closely punctured, face sparsely so, as is also the mesothorax; basal enclosed space of metathorax smooth or with subobsolete striæ; wings hyaline, the costal margin beyond stigma pale fuliginous; the knees and apex of posterior femora ferruginous; abdomen sparsely and coarsely punctured. Length .40 inch.

Hab.—Nevada. H. K. Morrison.

The following additions to the Library of the American Entomological Society were announced:—

Transactions of the American Entomological Society, vol. vii, No. 3. From the Publication Committee.

Proceedings of the Boston Society of Natural History, vol. xx, pp. 129—176. From the Society.

Bulletin of the Essex Institute, vol. xi, Nos. 1—3. From the Institute.

Canadian Entomologist, vol. xi, Nos. 5—7. From the Editor.

Le Naturaliste Canadien, vol. xi, Nos. 126—128. From the Editor.

Entomologist's Monthly Magazine, Nos. 181—184. From the Conductors.

Bulletin of the Brooklyn Entomological Society, vol. ii, No. 1. From the Society.

North American Entomologist, vol. i, Nos. 1 and 3. From the Editors.

Bulletin of the Minnesota Academy of Natural Sciences, 1877. From the Academy.

Catalogue of Scientific Serials, 1633—1876, by S. H. Scudder. By purchase.

Psyche, vol. ii, No. 64. From the Editors.

Cistula Entomologica, August 1879. By purchase.

Deutsche Entomologische Zeitschrift, 1879, Erstes Heft. From the Entomological Society of Berlin.

Jahreshefte des Vereins für vaterländische Naturkunde in Württemberg, 1879. From the Society.

Tijdschrift voor Entomologie, 1878, Nos. 3 and 4. From the Netherland Entomological Society.

Compte-Rendu Société Entomologique de Belgique, Série ii, Nos. 65—67. From the Society.

Indberetning om en i Sommeren 1876 foretagen lepidopterologisk Reise af J. Sparre Schneider. From the Author.

Verhandlungen des Vereins für naturwissenschaftliche Unterhaltung zu Hamburg 1876. From the Society.

October 10, 1879.

Director Dr. LeConte in the chair.

The Publication Committee reported favorably the following papers for publication in the Transactions of the American Entomological Society:—

"Notes on the species of Asaphes of Boreal America," by Geo. H. Horn, M. D.

"Revision of the Dascyllidæ of the United States," by Geo. H. Horn, M. D.

"Contributions to the Coleopterology of the United States," by Geo. H. Horn, M. D.

"Short Studies on North American Coleoptera," by J. L. LeConte, M. D.

The following additions to the Library of the American Entomological Society were announced:—

Canadian Entomologist, vol. xi, No. 8. From the Editor.

Le Naturaliste Canadien, September, 1879. From the Editor.

Bulletin of the Brooklyn Entomological Society, vol. ii, No. 2. From the Society.

North American Entomologist, vol. i, No. 4. From the Editor.

Report of the Entomologist, C. V. Riley, August 22, 1879. From the Author.

An account of a new genus of minute Pauropod-Myriapods (*Eurypauropus spinosus*), by John A. Ryder. From the Author.

November 14, 1879.

Vice-Director Dr. Horn in the chair.

Dr. Leconte remarked that the paper he had recently presented for publication consisted chiefly of synoptic tables, some genera which from the enlargement of the collections seemed to require renewed study. Among them he mentioned:

Leptacinus (including *Leptolinus*), 9 species, of which 3 are new.

Xantholinus 12 species; 5 new.

Lathrobium 33 species; 16 new. There are three natural divisions indicated: the first containing only *L. grande*, in which the epipleuræ have no marginal stria; the front tibiæ are obliquely impressed on the inner face and the front thighs are not thickened. The second contains species with an epipleural stria; the front tibiæ obliquely impressed on the inner face and the front thighs thickened and frequently armed with a tooth in the ♂. In the third division the epipleural stria is visible, but the front tibiæ are feebly or not at all impressed and less dilated; the front thighs are thickened but not toothed. In the first and second divisions the elytra are densely punctured, while in the third the punctures are more or less regularly arranged in rows. The sexual characters of the ♂, as in most genera of Staphylinidæ, enable the species to be readily distinguished.

Stilicus 7 species; 3 new. Very distinct by sexual characters and sculpture of under surface of the head.

Sunius. I have been obliged to reduce the number of species to five.

Bryaxis 31 species; 7 new.

Hyperaspis 26 species; 9 new. The punctuation of the under surface frequently enables species otherwise similar to be easily separated.

Hoplia 12 species; 4 new. One of these *H. equina* closely resembles *H. modesta*, but is remarkable for having but a single claw on each tarsus; the smaller claw of the front and middle tarsi being entirely obsolete. The hind claw is cleft near the tip as in *H. limbata* and *modesta* Hald., (*singularis* Burm.).

Myodites 11 species; 5 new. The form of the first joint of the hind tarsi readily distinguishes the species.

Mr. E. T. Cresson exhibited a collection of *Metopius* belonging to the American Entomological Society, and read descriptions of ten new species. as follows:—

Metopius basalis.—♀.—Deep black; margins of facial shield, spot above, anterior orbits not reaching summit of eyes, anterior knees, their tibiæ before, stripe on anterior tibiæ before, outer basal two-thirds of posterior femora, broad apical margin of first abdominal segment and two spots at tip of second segment, white; antennæ nearly two-thirds the length of body, slender; wings fuliginous, hyaline at base of posterior pair; legs slender; abdomen unusually long, coarsely rugose, first segment subpyramidal in profile, when viewed from behind the prominence is truncate. Length .80 inch.

Hab.—Florida.

Metopius robustus.—♀.—Robust, black; broad margins of facial shield, spot between antennæ, another on each side, scape beneath, scutellum, postscutellum, short line beneath stigma, large spot on sides of pleura, two spots on each side of metathorax, spot on outer side of posterior coxæ, their trochanters, spot at extreme tip of their femora, first segment of abdomen except base, apical margin of segments 2—4, broad on three and four, and narrow apical margin of fifth segment, all white; antennæ slender, about half the length of the body; wings fuliginous, darker on costal margin; posterior legs robust, especially the femora; abdomen much thickened posteriorly, rugose, first segment subpyramidal in profile, when viewed from behind the prominence is bituberculate. Length .65 inch.

Hab.—Maryland.

Metopius nevadensis.—♀.—Black, opaque; lateral and basal margins of facial shield, spot between antennæ, line on each side, scape beneath, lateral margin of prothorax above, sometimes a spot on pleura, apical margin of scutellum, spot on each side of metathorax, spot on four posterior coxæ, their trochanters, line on four anterior femora before, basal half of posterior pair, all the tibiæ and tarsi, first abdominal segment except base, a dot on apical corners of second, and apical margin of segments 3—6, broad on four and five, all yellowish-white; antennæ three-fourths the length of body, slender, filiform, fulvous beneath; wings hyaline, tinged with yellowish; posterior femora subrobust; abdomen rugose, first segment subpyramidal in profile, when viewed from behind the prominence is bituberculate. Length .55—.60 inch.

♂.—Resembles the ♀, except that the face entirely, labrum, spot on mandibles, palpi, all the trochanters, and four anterior femora except line above, are pale yellow.

Hab.—Nevada. (Morrison).

Metopius bellus.—♂.—Black; face, anterior orbits, spot beneath eyes, labrum, palpi, scape beneath, upper lateral margin of prothorax, scutellum except base, spot on postscutellum, two spots on metathorax, large mark on pleura laterally, tegulæ, legs except posterior coxæ above, tips of their femora, first abdominal segment except base, narrow lateral and apical margins of segments two and three, and the remaining segments except two black spots on each near base, all pale yellow; antennæ three-fourths the length of body, slender, filiform, fulvous, dusky above; wings yellowish hyaline; posterior femora subrobust; abdomen long, first segment subpyramidal in profile, when viewed from behind the prominence is bituberculate. Length .55 inch.

Hab.—Nevada. (Morrison).

Metopius comptus.—♀.—Black; face, except a medial line, spot between antennæ, line on each side, labrum, palpi, scape beneath, upper lateral margin of prothorax, scutellum except base, two spots beneath tegulæ, dot on each side of metathorax posteriorly, and spot on flanks, pale yellow; antennæ thickened, a little longer than head and thorax, brown-ferruginous, black at tips; wings subhyaline; legs dull fulvous, spot on coxæ, trochanters, four anterior knees, and their tibiæ and tarsi, yellow, posterior femora robust, their middle above and their tibiæ at tips, blackish; abdomen coarsely punctured, base of segments 1—3 and middle of four ferruginous, spot on each side of first segment, the second and third except base, apical margin narrowly of 4—6 and spot at sides of four and five, yellow, first segment rounded above in profile, the disk with two carinæ broadly diverging at base; venter fulvous, black at tip. Length .50 inch.

Hab.—Colorado. (Morrison).

Metopius montanus.—♂.—Black; face except two dots arranged longitudinally, anterior orbits, scape beneath, tegulæ, line beneath, apical margin of scutellum, a spot on each side at base, spot behind, two spots on metathorax behind, and smaller one on each flank, yellow; antennæ robust, filiform, two-thirds the length of body, black, fulvous at base; upper lateral margin of prothorax, spot on tegulæ posteriorly, and stain on sides of pleura anteriorly, dull ferruginous; wings subhyaline, costa broadly yellowish, pale fuscous beyond stigma, with costal nerve and stigma fulvous; legs robust especially posterior pair, yellow; middle of four anterior femora and outer side of posterior coxæ, fulvous, their coxæ within, their femora except base and apex and their tibiæ at tip within, black, their tarsi fuscous; abdomen coarsely confluently punctured, sulphur-yellow, base of first, the second except lateral apical corners, the third except apex and apical corners, and base of remaining segments narrowly, black; first segment flattened in profile, the disk with two longitudinal carinæ. Length .45 inch.

Hab.—Colorado. (Morrison).

Metopius concinnus.—♂.—Black; face except central longitudinal black mark, carina between antennæ, short line on each side, scape beneath, upper margin of prothorax interrupted medially, tegulæ except spot behind, line beneath, spot on each side of pleura anteriorly, apex of scutellum, spot behind, and another spot on flanks, sulphur-yellow; antennæ two-thirds the length of body, filiform, fuscous, shading into ferruginous at base; wings yellowish-hyaline, broadly pale fuscous along costa, darker at tip; legs yellow, coxæ except tips and sides of posterior pair, femora except apex and extreme

base, and posterior tibiæ at tip within, black; tarsi dusky at tips; abdomen sulphur-yellow, coarsely confluently punctured, second segment except narrow band at tip, the third except broad band at apex, and narrow basal margin of remaining segments, black; first segment subpyramidal in profile, when viewed from behind the prominence is emarginate. Length .50 inch.

Hab.—Nevada. (Morrison).

Metopius mirandus.—♀.—Black; face except central longitudinal spot, scape beneath, spot beneath tegulæ, apical margin of scutellum, spot behind, first segment of abdomen, broad apical margin of third, and the three following entirely, pale yellow; palpi, base of antennæ, upper margin of prothorax, dot before scutellum, spot on each side of metathorax, spot on sides of pleura, apical margin of second segment of abdomen and narrow band on middle of third segment, ferruginous; antennæ three-fourths the length of body, slender; wings subhyaline, costal margin broadly pale fuscous; legs fulvous, posterior coxæ within and their femora within black, spot on middle coxæ, posterior pair except within, their trochanters and spot at tip of their femora, pale yellowish, the latter robust; abdomen densely rugose, first segment gibbous in profile, rounded above, with two sharp carinæ on disk. Length .50 inch.

Hab.—Colorado. (Morrison).

Metopius laticinctus.—♀.—Black; face, except a large oblong ovate median black mark, anterior orbits, scape beneath, palpi, line on posterior angles of prothorax, short line beneath tegulæ, scutellum, except base, rounded spot above posterior coxæ, a dot on each side of metathorax posteriorly, four anterior coxæ beneath, their trochanters, their femora beneath more or less, their tibiæ, spot at sides of apex of first segment of abdomen, and a band at apex of segments 2—6, sometimes subinterrupted on two, broad on three and four, narrow and dilated laterally on five and six, all yellow; antennæ longer than head and thorax, thickened towards apex, brown above, ferruginous beneath; thorax coarsely punctured; wings hyaline, dusky on apical margin, subiridescent; four anterior femora above, posterior coxæ, trochanters, base and apex of their femora and within, pale ferruginous; basal half of posterior tibiæ and base of their tarsi, yellowish; posterior femora robust; abdomen coarsely sculptured, first segment rounded above in profile, with two sharp carinæ on disk. Length .45 inch.

Hab.—Colorado. (Morrison).

Metopius scitulus.—♂.—Small, black; lateral and apical margins of face, spot on each side of antennæ, scape beneath, palpi, line on each side of prothorax, large elongate spot beneath tegulæ, scutellum entirely, dot on each side of metathorax posteriorly, large rounded spot on each flank above posterior coxæ, spot on four anterior coxæ beneath, trochanters, base and apex of four anterior femora, line on anterior pair beneath, tips of posterior femora, all the tibiæ and tarsi, spot on each side at tip of first abdominal segment, and band at tip of second and following segments, more or less dilated laterally, all lemon yellow; antennæ longer than head and thorax, slightly thickened toward tips, dull ferruginous, fuscous at tips; wings stained with dusky yellow; abdomen deeply and coarsely pitted, first segment rounded in profile, with two sharp carinæ on disk. Length .40 inch.

Hab.—Nevada. (Morrison).

Dr. Horn called the attention of the members to an instance of dimorphism in the female of *Desmocerus auripennis* Chev., the occurrence of which is not common. The male of this species has the elytra of an uniform orange color, the punctuation is coarse on the disc gradually becoming finer toward the tip. The normal female has the disc of the elytra coarsely punctured but much less so than the male and behind the middle very much finer, the elytra are of the same color except that there is a large discal steel-blue space resembling in general outline a keystone, of variable extent. In the second form of female the elytra are bluish-black narrowly bordered at base, sides and apex with the orange color, the surface not shining, the punctuation being also much finer and denser than in the normal form. The punctuation of the thorax is also finer and denser.

Dr. Horn stated that this latter form had been supposed to be a distinct species by some of his European correspondents, but that he was confident that it was merely an instance of dimorphism, which view is at least partially confirmed by Mr. Morrison, who stated that the specimen shown had been taken in copulation with the normal male.

In answer to inquiry Dr. Horn stated that sexual dimorphism is not uncommonly observed especially in the female sex, citing as examples several species of *Dysticus* and *Gaurodytes*; in the male true dimorphism is very rare unless we consider the impoverished forms of *Prionus imbricornis* an instance, or probably better the almost hornless males of *Phanæus* and *Strategus*. These Dr. Horn did not consider instances of true dimorphism in the sense in which the female *Desmocerus* is noted, nor in the same category with the females of *Dytiscus* with the elytra plain or sulcate.

The following additions to the Library of the American Entomological Society were announced:—

Proceedings of the Boston Society of Natural History, vol. xx, pp. 177—208. From the Society.

Bulletin of the Essex Institute, vol. xi, Nos. 4—9. From the Institute.

Canadian Entomologist, vol. xi, Nos. 9 and 10. From the Editor.

North American Entomologist, vol. i, No. 5. From the Editor.

Entomologist's Monthly Magazine, Nos. 185 and 186. From the Conductors.

Proceedings of the Zoological Society of London, 1879, Parts 1 and 2. From the Society.

Journal of the Linnean Society of London, Parts 72—79. From the Society.

Proceedings of the Linnean Society of New South Wales, vol. iii, Parts 2—4. From the Society.

Annales de la Société Entomologique de Belgique, Tom. 22, No. 2. From the Society.

Observations sur le Musée Entomologique de l'Université Imperiale de Moscow, par V. de Motschoulsky. From Dr. J. L. LeConte.

DECEMBER 8, 1879.

Director Dr. LECONTE in the chair.

Dr. LeConte called attention to a small coleopter lately described by Dr. Sharp (Trans. Ent. Soc. London, 1879, p. 88), as *Propalticus oculatus*, obtained from the higher mountains of the Hawaiian Islands. Specimens having been sent by Dr. Sharp for examination, they were placed in Dr. Horn's hands for such preparation as they might need, for careful study. The general aspect of the insect is not unlike some of our *Litargus*, and the number of tarsal joints and their structure also similar. The anterior tibia has an unusually large spur which Dr. Sharp supposed had something to do with the saltatorial power of the insect. During the examination and comparison it was noticed that *Litargus* has a spur somewhat resembling that of *Propalticus* but of less size. The general structure of the insect indicates that Dr. Sharp was correct in referring it to the Mycetophagidæ, and the widely separated coxæ and other characters suffice to separate it from the other genera at present known.

Dr. Horn in continuation spoke of the form of the tibial spur which seemed to be flat or chisel-shaped, the tip forming a sudden point by the truncation of each angle. This spur may assist in the saltatorial attempts of the insect but the posterior femora seemed sufficiently dilated to produce at least moderate leaps, being fully as much dilated as in some of our smaller Halticini. The views expressed by Dr. LeConte were concurred in.

Dr. Horn by illustration exhibited a deformity in the last joint of the left anterior tarsus of *Cremastochilus saucius*, in which that member seemed to be composed of three separate joints closely united in a conical mass, each portion indicated by its bearing a pair of normal claws, except that one of the pairs was closely united and only separated a short distance at tip. The tendency of deformities to exist by triplication was alluded to. Dr. Horn hoped to have the deformities known to him illustrated and described, and the communication presented in the future.

Mr. E. T. Cresson presented the following descriptions of new hymenoptera:—

Philanthus sublimis.—♂.—Black; head and thorax clothed with a pale pubescence; head large, front prominent above antennæ; the entire face, nearly as high up as the lower ocellus, clypeus, most of mandibles, line on cheeks, two spots connected posteriorly behind ocelli, scape, four or five basal joints of flagellum beneath, prothorax above, two lines on mesothorax, two spots on scutellum, sometimes confluent, a dot on each side anteriorly, postscutellum, tubercles, a spot behind them and a larger subtriangular spot beneath, spot on each side of metathorax behind, sometimes two oblique lines on base, tegulæ, spot on all the coxæ beneath, apical half or two-thirds of femora, tibiæ and tarsi entirely, band on middle of first segment of abdomen sometimes interrupted, broad band on second and remaining segments, that on second segment triemarginate posteriorly, transverse spot on second segment of venter and bands or spots on remaining segments, all lemon-yellow; face broad; mesothorax shining, sparsely punctured; metathorax closely punctured, opaque, more or less deeply impressed longitudinally at base above; wings yellowish-hyaline, nervures and stigma pale fulvous; abdomen very coarsely, not closely, pitted, venter rather densely clothed with pale pubescence. Length .50—.55 inch.

Hab.—Colorado; California.

Philanthus californicus.—♂.—Black, shining; head and thorax sparsely clothed with pale pubescence; face broad, prominent above antennæ; the entire face nearly as high up as lower ocellus, clypeus, most of mandibles, line on cheeks, two spots behind ocelli, sometimes confluent posteriorly, scape, the four or five basal joints of flagellum beneath, subinterrupted line on prothorax above, two dots on disk of mesothorax sometimes wanting, two spots on scutellum, postscutellum, tubercles, spot behind and another beneath, tegulæ, spot or line on coxæ beneath, apex of femora more or less, tibiæ and tarsi entirely, narrow interrupted band on middle of first segment of abdomen, broad band on second segment, notched in middle posteriorly, a rather broad bisinuate band on third, narrow bands on apical margin of three following segments, and subobsolete bands on venter, all yellow; head large; mesothorax with fine scattered punctures, deeply impressed on anterior middle; metathorax as in *sublimis;* wings yellow-hyaline, nervures and stigma pale fulvous; abdomen shining, with deep scattered punctures on two or three basal segments; venter thickly clothed with pale pubescence. Length .47 inch.

Hab.—California. Closely allied to *sublimis*, but the abdomen is much less coarsely sculptured.

Philanthus pacificus.—♂.—Black, shining; head and thorax thinly clothed with pale pubescence; the face, extending up to ocelli, clypeus, two spots behind ocelli, spot behind eyes, spot on mandibles, dot on scape beneath, four basal joints of flagellum beneath, prothorax above, two stripes on disk of mesothorax, tegulæ, spot or line in front, scutellum sometimes interrupted in middle, postscutellum, two spots or oblique lines on disk of metathorax, tubercles, spot behind, knees, tibiæ and tarsi, broad band on first and second segments of abdomen, deeply notched on each side posteriorly, narrow band at apex of third and three following segments more or less deeply emarginate on each side anteriorly, all yellow or yellowish-white; around the base of antennæ the face is more or less black; head large; mesothorax smooth, polished, with a few scattered punctures; metathorax closely punctured, with a short rather deep groove on disk; wings hyaline, tinged with yellow, stigma and costa pale fulvous; abdomen shining, finely and sparsely punctured; venter piceous, apical margin of segments paler. Length .30—.35 inch.

Hab.—Nevada; Oregon.

Philanthus scelestus.—♀.—Deep black, shining; head large, face broad, prominent between antennæ; space between ocelli and insertion of antennæ opaque; face, continued up on each side as far as emargination of eyes, three spots sometimes confluent between antennæ, clypeus, line on mandibles, scape beneath, interrupted line or two spots on collar, tubercles, postscutellum, dot on tegulæ, spot on sides of first segment of abdomen, sublunate spot on each side of second, and interrupted or subinterrupted line on apex of two or three following segments, white; knees, tibiæ except tips beneath and most of tarsi, yellowish; thorax above smooth and impunctured, a shallow fovea on disk of metathorax; wings dusky, tinged with yellowish; abdomen smooth and impunctured; sometimes the white line on apex of third and fourth segments are not interrupted, but deeply and squarely emarginate on each side anteriorly. Length .35—.42 inch.

Hab.—Colorado.

Philanthus basilaris.—♀.—Black, shining; head and thorax clothed with pale pubescence; a large subcordate mark between antennæ, sides of face narrowed to emargination of eyes, clypeus, line on mandibles, line behind eyes, four basal joints of antennæ beneath, interrupted line on collar, postscutellum, tubercles, spot behind, and tegulæ, white; apex of four anterior femora beneath, posterior knees and tibiæ, except spot behind on two anterior pairs, pale yellow; tips of posterior tibiæ beneath and the tarsi fulvous; wings yellowish-hyaline, nervures and stigma pale fulvous; two basal segments of abdomen above, and the three beneath, fulvous, an irregular band on first segment, a broad, sometimes interrupted band on second, and a narrower entire band at apex of third and following segments, white; space between summit of eyes much narrower than usual; mesothorax finely punctured, sparsely so on disk and on scutellum; disk of metathorax with a rather deep longitudinal groove; abdomen shining, with deep sparse punctures, closer and coarser on two basal segments. Length .55—.60 inch.

♂.—Eyes nearly meeting on vertex; the spot on front above antennæ large and subrhomboidal; the eight basal joints of antennæ are yellow beneath; the base of first abdominal segment above and two basal segments beneath are pale fulvous; the segments above rather more coarsely punctured than in ♀. Length .40 inch.

Hab.—Colorado.

Philanthus zebratus.—♂.—Black, shining; eyes unusually large, nearly meeting on vertex; the entire face, extending up as high as ocelli, clypeus, spot or line behind eyes, eight basal joints of antennæ beneath, interrupted line on collar, tegulæ, spot in front, spot on tubercles, sublunate spot behind, line on postscutellum, sometimes interrupted, tips of femora, tibiæ and tarsi and band on each abdominal segment above, broad on first and second and becoming gradually narrower on remaining segments, all lemon-yellow; thorax above with rather fine, scattered punctures; disk of metathorax with a deep longitudinal groove; wings yellowish-hyaline; abdomen shining, with rather deep scattered punctures; venter piceous, thickly clothed with ochraceous pubescence. Length .45 inch.

Hab.—Nevada.

Philanthus scutellaris.—♂.—Black, shining; head, thorax and base of abdomen above, with short pale pubescence; eyes unusually large, nearly meeting on vertex, sides of face, large subrhomboidal mark above antennæ, clypeus, spot behind eyes, eight basal joints of antennæ beneath, subinterrupted line on prothorax above, tegulæ, dot above, spot beneath, scutellum, postscutellum, two dots at tip of metathorax above, tips of femora, tibiæ and tarsi, broad band on two basal segments of abdomen, narrowed and interrupted medially, and a narrow band on apex of third and three following segments, all yellow; thorax above finely punctured, metathorax deeply impressed on disk; wings dusky on apical half, nervures pale fuscous; abdomen shining, finely but not closely punctured; venter thickly clothed with fuscous pubescence. Length .50 inch.

Hab.—Kansas. Closely allied to *Sanborni* Cress.

The following Officers etc., were elected to serve for the year 1880:—

Director.—John L. LeConte. M. D.
Vice-Director.—George H. Horn, M. D.
Recorder.—James H. Ridings.
Treasurer.—E. T. Cresson.
Conservator.—George B. Cresson.
Publication Committee.—George H. Horn, M. D., Samuel Lewis, M. D.

The following additions to the Library of the American Entomological Society were announced:—

Canadian Entomologist, vol. xi, No. 11. From the Editor.

Proceedings of the Boston Society of Natural History, vol. xx, Part 2, and sig. 15—17 of Part 3. From the Society.

Bulletin of the Brooklyn Entomological Society, vol. ii, No. 3. From the Society.

Le Naturalist Canadien, Nos. 130 and 131. From the Editor.

Destruction of Obnoxious Insects, by application of the yeast fungus. By Dr. H. A. Hagen. From the Author.

Transactions of the Entomological Society of London, for 1878. From the Society.

Transactions and Proceedings of the Philosophical Society of Adelaide, South Australia, 1877 and 1878. From the Society.